Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1   1.   (currently amended) A method for plotting a network topology using a markup
2   language, comprising the steps of:
3   retrieving first topology information from a data source in response to a request for a
4   first graphic display, wherein the first topology information represents a first
5   portion of a network topology that comprises graphical images that represent
6   nodes and connections between nodes;
7   receiving converting the first topology information as into a markup language
8   document in response to a request for a first graphic display, wherein the
9   markup language document is associated with a document type definition that
10   defines how to process information in the markup language document to plot a
11   graph based on the information;
12   plotting a graph of the first portion of the topology, based on the first topology
13   information in the markup language document;
14   causing display of the graph of the first portion of the topology on a display device;
15   after causing display of the graph of the first portion of the topology, and in response
16   to an interaction with a graphical image from the graph of the first portion of
17   the topology, automatically retrieving second topology information from the
18   data source, wherein the second topology information represents a second
19   portion of the network topology; and
20   causing display of a graph of (a) at least a portion of the first portion based on the first
21   topology information and (b) the second portion of the topology based on the

22		second topology information, without retrieving again the first topology
23		information from the data source and plotting again the graph of the first
24		portion of the topology.

1 2. (canceled)

1 3. (canceled)

1 4. (previously presented) The method of claim 1 wherein the first topology information

2 as the markup language document includes

3 image information for specifying a graphical image representing a focus entity for

4 plotting in the graph of the first portion of the topology,

5 label information for specifying a label associated with the graphical image for

6 plotting in the graph of the first portion of the topology,

7 connection information for specifying one or more connections between the graphical

8 image and one or more secondary graphical images; and

9 wherein the step of plotting the graph of the first portion of the topology is performed

10 based on the image information, the label information, and the connection

11 information.

1 5. (previously presented) The method of claim 4 wherein the step of plotting the graph

2 of the first portion of the topology is performed according to a display arrangement in

3 which the graphical image is substantially centered on the display device with the one

4 or more secondary graphical images connected to the graphical image in a generally

5 circular pattern.

1 6. (previously presented) The method of claim 4 wherein the first topology information

2 as the markup language document further includes one or more of:

3		tool tip information for specifying information to display on the display device upon a
4		first interaction with the graphical image,
5		click action information for specifying an action to perform upon a second interaction
6		with the graphical image,
7		menu information for specifying a menu to display on the display device upon a third
8		interaction with the graphical image; and
9		wherein the step of receiving the first ~~graph~~ topology information is according to the
10		markup language document.

1	7.	(previously presented) The method of claim 4 wherein the first topology information
2		as the markup language document further includes
3		menu information for specifying a menu to display on the display device upon a first
4		interaction with the one or more connections; and
5		wherein the step of receiving the first topology information is according to the
6		markup language document.

1	8.	(previously presented) The method of claim 1 wherein the step of plotting the graph
2		of the first portion of the topology is performed according to one specified display
3		arrangement from a plurality of available display arrangements.

1	9.	(currently amended) A method for displaying portions of a network topology,
2		comprising the steps of:
3		~~receiving~~ converting network topology information into a first markup language
4		document, wherein the markup language document is associated with a
5		document type definition that defines how to process information in the
6		markup language document to plot a graph, wherein the markup language
7		document ~~including~~ includes

8   graph information specifying display attributes for plotting a first portion of

9   the network topology;

10   network node information, the node information including

11   image information for specifying a graphical image representing a first

12   node for display on a display device,

13   node label information for specifying a node label associated with the

14   graphical image for display on the display device,

15   network node connection information specifying a connection between

16   graphical images and representing a network link between the first

17   node and a second node;

18   plotting the first portion of the network topology based on the first markup language

19   document and associated document type definition;

20   displaying on the display device, as part of the first portion of the network topology,

21   the graphical image and the node label for the first node, according to the

22   node information and the graph information;

23   displaying on the display device, as part of the first portion of the network topology,

24   the connection between the graphical image representing the first node and at

25   least a second graphical image representing the second node, according to the

26   node connection information and the graph information;

27   <u>after displaying the graphical image, the node label and the connection, and in</u>

28   <u>response to an interaction with a graph of the first portion of the network</u>

29   <u>topology, retrieving</u> ~~receiving~~ a second markup language document associated

30   with the document type definition, wherein the second markup language

31   document corresponds to a second portion of the network topology; and

32   causing display of a graph of (a) at least a portion of the first portion and (b) the

33   second portion, without again plotting the first portion of the network

34   topology.

1   10.   (original) The method of claim 9 wherein the network node information further

2   includes one or more of the following:

3   tool tip information for specifying information to display on the display device upon a

4   first interaction with the graphical image,

5   click action information for specifying an action to perform upon a second interaction

6   with the graphical image,

7   menu information for specifying a menu to display on the display device upon a third

8   interaction with the graphical image; and

9   the method further comprises the step of:

10   enabling functions initiated by each of the first interaction, the second interaction, and

11   the third interaction.

1   11.   (original) The method of claim 10 wherein the function initiated by the third

2   interaction includes retrieving a file for displaying information about one or more

3   network links between the first node and one or more nodes connected to the first

4   node.

1   12.   (original) The method of claim 10 wherein the function initiated by the third

2   interaction includes retrieving a file for displaying information about one or more

3   routers associated with the first node.

1 13. (original) The method of claim 10 wherein the function initiated by the third
2   interaction includes retrieving a file for displaying information about one or more
3   subnetworks associated with the first node.

1 14. (original) The method of claim 9 wherein the steps of displaying the graphical image
2   and the node label and displaying the connection are performed according to one
3   specified display arrangement from a plurality of available display arrangements.

1 15. (original) The method of claim 9 wherein the steps of displaying the graphical image
2   and the node label and displaying the connection are performed such that the
3   graphical image is substantially centered on the display element of the display device.

1 16. (original) The method of claim 9 wherein the step of displaying the graphical image
2   and the node label is performed such that graphical image size is related to the
3   number of connections to the graphical image.

1 17. (original) The method of claim 9 wherein the network node connection information
2   includes connection label information for specifying a label associated with the
3   connection and wherein the step of displaying the connection includes displaying the
4   connection label.

1 18. (original) The method of claim 17 wherein the connection label information includes
2   a cost parameter label that reflects the bandwidth capacity of the network link
3   represented by the connection.

1 19. (original) The method of claim 9 wherein the connection information includes
2   menu information for specifying a menu to display on the display device upon an
3   interaction with the connection; and
4   the method further comprises the step of:

5   enabling a function initiated by the interaction.

1 20. (currently amended) A computer-readable medium carrying one or more sequences of

2   instructions for plotting a network topology using a markup language, wherein

3   execution of the one or more sequences of instructions by one or more processors

4   causes the one or more processors to perform steps of:

5   retrieving first topology information from a data source <u>in response to a request for a</u>

6   <u>first graphic display</u>, wherein the first topology information represents a first

7   portion of a network topology that comprises graphical images that represent

8   nodes and connections between nodes;

9   ~~receiving~~<u>converting</u> the first topology information ~~as~~ <u>into</u> a markup language

10   document ~~in response to a request for a first graphic display~~, wherein the

11   markup language document is associated with a document type definition that

12   defines how to process information in the markup language document to plot a

13   graph based on the information;

14   plotting a graph of the first portion of the topology, based on the first topology

15   information in the markup language document<u>;</u>

16   causing display of the graph of the first portion of the topology on a display device;

17   <u>after causing display of the graph of the first portion of the topology, and in response</u>

18   <u>to an interaction with a graphical image from the graph of the first portion of</u>

19   <u>the topology, automatically</u> retrieving second topology information from the

20   data source, wherein the second topology information represents a second

21   portion of the network topology; and

22   causing display of a graph of (a) at least a portion of the first portion <u>based on the first</u>

23   <u>topology information</u> and (b) the second portion of the topology <u>based on the</u>

24   <u>second topology information</u>, without retrieving again the first topology

| 25 | | information from the data source and plotting again the graph of the first |
| 26 | | portion of the topology. |

1	21.	(previously presented) The computer-readable medium of claim 20 wherein the first
2		topology information as the markup language document includes
3		image information for specifying a graphical image representing a focus entity for
4		plotting in the graph of the first portion of the topology,
5		label information for specifying a label associated with the graphical image for
6		plotting in the graph of the first portion of the topology,
7		connection information for specifying one or more connections between the graphical
8		image and one or more secondary graphical images; and
9		wherein execution of the one or more sequences of instructions by one or more
10		processors causes the one or more processors to perform the step of plotting
11		the graph of the first portion of the topology based on the image information,
12		the label information, and the connection information.

1	22.	(currently amended) A computer-readable medium carrying one or more sequences of
2		instructions for displaying portions of a network topology, wherein execution of the
3		one or more sequences of instructions by one or more processors causes the one or
4		more processors to perform steps of:
5		~~receiving~~ converting network topology information into a first markup language
6		document, wherein the markup language document is associated with a
7		document type definition that defines how to process information in the
8		markup language document to plot a graph, wherein the markup language
9		document ~~including~~ includes

10   graph information specifying display attributes for plotting a first portion of

11   the network topology;

12   network node information, the node information including

13   image information for specifying a graphical image representing a first

14   node for display on a display device,

15   node label information for specifying a node label associated with the

16   graphical image for display on the display device,

17   network node connection information specifying a connection between

18   graphical images and representing a network link between the first

19   node and a second node;

20   plotting the first portion of the network topology based on the first markup language

21   document and associated document type definition;

22   displaying on the display device, as part of the first portion of the network topology,

23   the graphical image and the node label for the first node, according to the

24   node information and the graph information;

25   displaying on the display device, as part of the first portion of the network topology,

26   the connection between the graphical image representing the first node and at

27   least a second graphical image representing the second node, according to the

28   node connection information and the graph information;

29   <u>after displaying the graphical image, the node label and the connection, and in</u>

30   <u>response to an interaction with a graph of the first portion of the network</u>

31   <u>topology, retrieving</u> ~~receiving~~ a second markup language document associated

32   with the document type definition, wherein the second markup language

33   document corresponds to a second portion of the network topology; and

34		causing display of a graph of (a) at least a portion of the first portion and (b) the
35		second portion, without again plotting the first portion of the network
36		topology.

1	23.	(original) The computer-readable medium of claim 22 wherein the network node
2		connection information includes connection label information for specifying a label
3		associated with the connection and wherein execution of the one or more sequences
4		of instructions by one or more processors causes the one or more processors to
5		perform the step of displaying the connection including displaying a label
6		representing a cost parameter that reflects the bandwidth capacity of the network link
7		associated with the connection.

1	24.	(currently amended) A computer system comprising:
2		a network interface;
3		a memory; and
4		one or more processors connected to the network interface, the one or more
5		processors configured for
6		retrieving first topology information from a data source in response to a
7		request for a first graphic display, wherein the first topology
8		information represents a first portion of a network topology that
9		comprises graphical images that represent nodes and connections
10		between nodes;
11		receiving converting the first topology information as into a markup language
12		document in response to a request for a first graphic display, wherein
13		the markup language document is associated with a document type

14	definition that defines how to process information in the markup
15	language document to plot a graph based on the information;
16	plotting a graph of the first portion of the topology, based on the first topology
17	information in the markup language document;
18	causing display of the graph of the first portion of the topology on a display
19	device;
20	after causing display of the graph of the first portion of the topology, and in
21	response to an interaction with a graphical image from the graph of the
22	first portion of the topology, automatically retrieving second topology
23	information from the data source, wherein the second topology
24	information represents a second portion of the network topology; and
25	causing display of a graph of (a) at least a portion of the first portion based on
26	the first topology information and (b) the second portion of the
27	topology based on the second topology information, without retrieving
28	again the first topology information from the data source and plotting
29	again the graph of the first portion of the topology.

1	25.	(currently amended) An apparatus for displaying a network topology, the apparatus
2		comprising:
3		means for ~~receiving~~ converting network topology information into a first markup
4		language document, wherein the markup language document is associated
5		with a document type definition that defines how to process information in the
6		markup language document to plot a graph, wherein the markup language
7		document ~~including~~ includes
8		graph information specifying display attributes for plotting a first portion of
9		the network topology;

12

10   network node information, the node information including

11   image information for specifying a graphical image representing a first

12   node for display on a display device,

13   node label information for specifying a node label associated with the

14   graphical image for display on the display device,

15   network node connection information specifying a connection between

16   graphical images and representing a network link between the first

17   node and a second node;

18 means for plotting the first portion of the network topology based on the first markup

19   language document and associated document type definition;

20 means for displaying on the display device, as part of the first portion of the network

21   topology, the graphical image and the node label for the first node, according

22   to the node information and the graph information;

23 means for displaying on the display device, as part of the first portion of the network

24   topology, the connection between the graphical image representing the first

25   node and at least a second graphical image representing the second node,

26   according to the node connection information and the graph information;

27 means for ~~receiving~~ retrieving a second markup language document associated with

28   the document type definition after displaying the graphical image, the node

29   label and the connection, and in response to an interaction with the graphical

30   image representing the first node, wherein the second markup language

31   document corresponds to a second portion of the network topology; and

32 means for causing display of a graph of (a) at least a portion of the first portion and

33   (b) the second portion, without again plotting the first portion of the network

34   topology.

1   26.   (canceled)

1   27.   (canceled)

1   28.   (canceled)

1   29.   (canceled)

1   30.   (canceled)

1   31.   (canceled)

1   32.   (canceled)

1   33.   (canceled)

1   34.   (canceled)

1   35.   (new) An apparatus for displaying a network topology, the apparatus comprising:

2   means for retrieving first topology information from a data source in response to a

3   request for a first graphic display, wherein the first topology information

4   represents a first portion of a network topology that comprises graphical

5   images that represent nodes and connections between nodes;

6   means for converting the first topology information into a markup language

7   document, wherein the markup language document is associated with a

8   document type definition that defines how to process information in the

9   markup language document to plot a graph based on the information;

10   means for plotting a graph of the first portion of the topology, based on the first

11   topology information in the markup language document;

14

12   means for causing display of the graph of the first portion of the topology on a display

13   device;

14   means for automatically retrieving second topology information from the data source

15   after causing display of the graph of the first portion of the topology and in

16   response to an interaction with a graphical image from the graph of the first

17   portion of the topology, wherein the second topology information represents a

18   second portion of the network topology; and

19   means for causing display of a graph of (a) at least a portion of the first portion based

20   on the first topology information and (b) the second portion of the topology

21   based on the second topology information, without retrieving again the first

22   topology information from the data source and plotting again the graph of the

23   first portion of the topology.